### Regional HIV/AIDS Epidemiologic Profile of Southeast HSR, Massachusetts: 2014

#### Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Diseases, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2014, this resulted in the removal of 4,135 HIV/AIDS cases, of which 973 have died and 3,162 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location at diagnosis, is the basis for MDPH service planning. This change is partially a result of increased activities required by the Centers for Disease Control and Prevention (CDC) for de-duplication among states in an effort to identify cases that are counted multiple times in the National HIV/AIDS Surveillance System. The cases are assigned to the state that reports the earliest date of AIDS diagnosis if available. If the case has not progressed to AIDS, the case is assigned to the state with the earliest HIV diagnosis date. Please note that previous HIV/AIDS fact sheets, data reports and presentations included cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports. and other data presentations have been updated to eliminate the presumed heterosexual reported risk category for men: those cases have been reassigned to the no identified risk (NIR) category. The presumed heterosexual reported risk category was used with the intention of identifying HIV reported risk for women when sex with men is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. Twenty-nine percent of fe living with HIV/AIDS and 40% of recent female HIV diagnoses are reported in the presumed heterosexual reported risk category. The application of the presumed heterosexual reported risk category to men is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate reported risks that are possible for men, including sex with other men (MSM) or IDU. The CDC reports men diagnosed with HIV/AIDS who report sex with women as their only risk factor, without corresponding partner risk or HIV status information, in the NIR category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for men in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual reported risk categories for women.

# Table 1. Total number of people reported with HIV infection or AIDS<sup>1</sup> by mortality status on December 31, 2013: Southeast HSR, Massachusetts<sup>2</sup>

	N	%
People Living with HIV/AIDS	2,616	57%
People Reported with HIV or AIDS who are Deceased	1,939	43%
Total Number of People Reported with HIV Infection or		
AIDS	4,555	100%

<sup>&</sup>lt;sup>1</sup> Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14

## Table 2. Average annual rate of HIV infection diagnosis from 2010 to 2012 and HIV/AIDS prevalence rate on 12/31/13<sup>1</sup>: Southeast HSR, Massachusetts<sup>2</sup>

Average annual HIV diagnosis rate from 2010–2012	Average rate per 100,000	Average annual number of HIV diagnoses
Southeast HSR, MA	7.4	93.7
Massachusetts Total	10.5	688.3

HIV/AIDS prevalence rate		Number of people
on 12/31/13	Rate per 100,000	living with HIV/AIDS
Southeast HSR, MA	206.5	2,616
Massachusetts Total	292.7	19,165

<sup>&</sup>lt;sup>1</sup> The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation.
<sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14

<sup>&</sup>lt;sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Table 3. People living with HIV/AIDS<sup>1</sup>, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year<sup>2</sup>: 2003–2012, Southeast HSR, Massachusetts<sup>3</sup>

Year	HIV/AIDS Prevalence	Deaths among those with HIV/AIDS	Diagnosis of HIV Infection
0000	0.000	00	440
2003	2,009	69	118
2004	2,072	52	115
2005	2,126	55	109
2006	2,198	45	117
2007	2,273	40	115
2008	2,317	51	95
2009	2,383	49	115
2010	2,426	47	90
2011	2,488	28	90
2012	2,553	36	101

<sup>1</sup> Number of people living with HIV/AIDS on 12/31 of each year

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14

<sup>&</sup>lt;sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>&</sup>lt;sup>3</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Table 4. People diagnosed with HIV infection from 2010–2012<sup>1</sup> and people living with HIV/AIDS on December 31, 2013 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: Southeast HSR, Massachusetts<sup>2</sup>

	HIV Infection Diag	noses	PLWH/A			
Gender:	N	%	N	%		
Male	201	72%	1,854	71%		
Female	80	28%	762	29%		
Place of Birth:	N	%	N	%		
US	186	66%	1,958	75%		
Puerto Rico/US Dependency <sup>3</sup>	13	5%	153	6%		
Non-US	82	29%	505	19%		
Race/Ethnicity:	N	%	N	%		
White (non-Hispanic)	148	53%	1,594	61%		
Black (non-Hispanic)	89	32%	591	23%		
Hispanic/Latino	36	13%	387	15%		
Asian/Pacific Islander	<b></b> <sup>7</sup>	<b></b> <sup>7</sup>	17	1%		
Other/Unknown	<b></b> <sup>7</sup>	7	27	1%		
Exposure Mode:	N	%	N	%		
Male-to-male sex (MSM)	123	44%	1,039	40%		
Injection Drug Use (IDU)	23	8%	520	20%		
MSM/IDU	10	4%	86	3%		
Heterosexual Sex	25	9%	397	15%		
Other	0	0%	53	2%		
Total Undetermined	100	36%	521	20%		
<ul> <li>Presumed Heterosexual Sex<sup>4</sup></li> </ul>	41	15%	194	7%		
Undetermined <sup>5</sup>	59	21%	327	13%		
Age:	N	%	N	%		
	At Diagnosis		On December 3			
Under 13	0	0%	3	<1%		
13 to 19	8	3%	10	<1%		
20 to 24	30	11%	38	1%		
25 to 29	21	7%	76	3%		
30 to 34	33	12%	98	4%		
35 to 39	26	9%	151	6%		
40 to 44	38	14%	239	9%		
45 to 49	51	18%	450	17%		
50 to 54	28	10%	610	23%		
55 to 59	28	10%	463	18%		
60+	18	6%	478	18%		
Total <sup>6</sup>	281	100%	2,616	100%		

<sup>1</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>&</sup>lt;sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>&</sup>lt;sup>3</sup> Ninety-eight percent of people diagnosed with HIV infection from 2010–2012 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

<sup>&</sup>lt;sup>4</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>&</sup>lt;sup>5</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>&</sup>lt;sup>6</sup> Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

<sup>&</sup>lt;sup>7</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Table 5. People living with HIV/AIDS on December 31, 2013 by gender and race/ethnicity: Southeast HSR, Massachusetts<sup>1</sup>

	Male	Female		
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	1,254	68%	340	45%
Black (non-Hispanic)	319	17%	272	36%
Hispanic/Latino	253	14%	<b></b> <sup>3</sup>	<b></b> <sup>3</sup>
Asian/Pacific Islander	13	1%	3	3
Total <sup>2</sup>	1,854	100%	762	100%

Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

#### Table 6. People living with HIV/AIDS on December 31, 2013 by gender and exposure mode: Southeast HSR, Massachusetts<sup>1</sup>

	Male		Female		
Exposure Mode:	N	%	N	%	
Male-to-male sex (MSM)	1,039	56%	N/A	N/A	
Injection drug use (IDU)	306	17%	214	28%	
MSM/IDU	86	5%	N/A	N/A	
Heterosexual sex	113	6%	284	37%	
Other	31	2%	22	3%	
Total Undetermined	279	15%	242	32%	
<ul> <li>Presumed heterosexual sex<sup>2</sup></li> </ul>	N/A	N/A	194	25%	
<ul> <li>Undetermined<sup>3</sup></li> </ul>	279	15%	48	6%	
Total	1,854	100%	762	100%	

Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>&</sup>lt;sup>2</sup> Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

<sup>&</sup>lt;sup>3</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

<sup>&</sup>lt;sup>3</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

N/A=Not Applicable

Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Southeast HSR, Massachusetts<sup>1</sup>, 2003–2012<sup>2</sup>

N % N  2003 80 68% 38 2004 88 77% 27	е	
	%	Total
	32%	118
	23%	115
2005 90 83% 19	17%	109
2006 84 72% 33	28%	117
2007 90 78% 25	22%	115
2008 69 73% 26	27%	95
2009 83 72% 32	28%	115
2010 68 76% 22	24%	90
2011 60 67% 30	33%	90
2012 73 72% 28	28%	101

<sup>&</sup>lt;sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Southeast HSR, Massachusetts<sup>1</sup>, 2003–2012<sup>2</sup>

	White Non-Hi	spanic	Black Non-Hispanic		Hispanic/La	atino	Total <sup>3</sup>
	N	%	N	%	N	%	N
2002	70	C 40/	20	050/	4.4	00/	440
2003	76	64%	29	25%	11	9%	118
2004	62	54%	22	19%	28	24%	115
2005	65	60%	30	28%	13	12%	109
2006	67	57%	29	25%	15	13%	117
2007	64	56%	26	23%	23	20%	115
2008	51	54%	31	33%	12	13%	95
2009	61	53%	32	28%	21	18%	115
2010	52	58%	26	29%	12	13%	90
2011	47	52%	29	32%	9	10%	90
2012	49	49%	34	34%	15	15%	101

<sup>&</sup>lt;sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>&</sup>lt;sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

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<sup>&</sup>lt;sup>3</sup> Totals include Asian/Pacific Islander, American Indian/Alaskan Native individuals, and those of other or undetermined race/ethnicity.

Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: Southeast HSR, Massachusetts<sup>1</sup>, 2003–2012<sup>2</sup>

	US		Puerto R US Depend	•	Non-U	S	Total
	N	%	N	%	N	%	N
2003	86	73%	7	6%	25	21%	118
2004	77	67%	12	10%	26	23%	115
2005	81	74%	6	6%	22	20%	109
2006	82	70%	<b></b> <sup>4</sup>	4	4	4	117
2007	75	65%	6	5%	34	30%	115
2008	62	65%	4	4	4	4	95
2009	79	69%	5	4%	31	27%	115
2010	68	76%	4	4	<b></b> <sup>4</sup>	4	90
2011	58	64%	4	4	4	4	90
2012	60	59%	9	9%	32	32%	101

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Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for

the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>&</sup>lt;sup>3</sup> Ninety-eight percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 1% were born in an unknown dependency.

<sup>&</sup>lt;sup>4</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: Southeast HSR, Massachusetts<sup>1</sup>, 2003–2012<sup>2</sup>

	MS	SM	ID	U	MS ID		HT	SX	Ot	her	Pre HTS			eter- ned <sup>4</sup>	Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2003	42	36%	19	16%	<b></b> <sup>5</sup>	<b></b> <sup>5</sup>	19	16%	5	5	14	12%	19	16%	118
2004	47	41%	14	12%	<b></b> 5	<b></b> 5	14	12%	5	<b></b> 5	10	9%	26	23%	115
2005	51	47%	15	14%	<sup>5</sup>	<sup>5</sup>	12	11%	<b></b> 5	<u></u> 5	5	5%	21	19%	109
2006	58	50%	12	10%	<b></b> <sup>5</sup>	<b></b> <sup>5</sup>	10	9%	5	<b></b> <sup>5</sup>	14	12%	22	19%	117
2007	52	45%	15	13%	<b></b> 5	<b></b> 5	15	13%	5	<b></b> <sup>5</sup>	8	7%	22	19%	115
2008	37	39%	8	8%	7	7%	17	18%	Q	0%	9	9%	17	18%	95
2009	46	40%	8	7%	<b></b> 5	<b></b> 5	19	17%	<b></b> <sup>5</sup>	<b></b> <sup>5</sup>	12	10%	27	23%	115
2010	45	50%	10	11%	<b></b> 5	<b></b> 5	10	11%	<b></b> <sup>5</sup>	<b></b> <sup>5</sup>	9	10%	14	16%	90
2011	38	42%	<b></b> <sup>5</sup>	<b></b> <sup>5</sup>	<sup>5</sup>	<b></b> 5	9	10%	0	0%	15	17%	21	23%	90
2012	40	40%	9	9%	5	5%	6	6%	0	0%	17	17%	24	24%	101

<sup>&</sup>lt;sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most

<sup>3</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>&</sup>lt;sup>4</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>&</sup>lt;sup>5</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Southeast HSR, Massachusetts<sup>1</sup>, 2003–2012<sup>2</sup>

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2003	46	118	39%
2004	47	115	41%
2005	38	109	35%
2006	47	117	40%
2007	40	115	35%
2008	36	95	38%
2009	39	115	34%
2010	30	90	33%
2011	32	90	36%
2012	29	101	29%

<sup>&</sup>lt;sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>&</sup>lt;sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999. Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14

Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: Southeast HSR, Massachusetts, <sup>1</sup> 2010–2012<sup>2</sup>

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Gender:	N	N	%
Male Female	61 30	201 80	30% 38%
Race/Ethnicity:	N	N	%
White (non-Hispanic) Black (non-Hispanic) Hispanic/Latino Asian/Pacific Islander Other/Undetermined <sup>3</sup>	39 34 11 <sup>5</sup> <sup>5</sup>	148 89 36 <sup>5</sup> <sup>5</sup>	26% 38% 31% <sup>5</sup> <sup>5</sup>
Place of Birth:	N	N	%
US Puerto Rico/US Dependencies <sup>4</sup> Non-US <b>Total</b>	<sup>5</sup> <sup>5</sup> 33 <b>91</b>	<sup>5</sup> <sup>5</sup> 82 <b>281</b>	<sup>5</sup> <sup>5</sup> 40% <b>32%</b>

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Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999. Includes American Indian/Alaska Native, other and unspecified race/ethnicity.

<sup>&</sup>lt;sup>4</sup> Ninety-eight percent of people diagnosed with HIV infection from 2010–2012 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

<sup>&</sup>lt;sup>5</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.